STORM WATER POLLUTION PREVENTION PLAN

FOR U. S. STEEL – MINNTAC

MOUNTAIN IRON, MINNESOTA

FINAL DRAFT

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INTRODUCTION

On November 16, 1990, the United States Environmental Protection Agency (EPA) published regulations that require certain industrial dischargers of storm water to apply for storm water permits under the National Pollutant Discharge Elimination System (NPDES) program. In Minnesota, the Minnesota Pollution Control Agency (MPCA) administers the NPDES program. On November 2, 1992, MPCA issued a NPDES General Permit for storm water Discharges Associated with Industrial Activity, Permit Number MN G610000. Each industrial facility covered by the MPCA General Permit is required to prepare a Storm Water Pollution Prevention (SWPP) plan by November 2, 1993, and to implement the plan by November 2, 1994. This SWPP plan is designed to meet the requirements of MPCA's General Permit which expires on November 2, 1997. This plan must be amended whenever there is a change in design, construction, operation or maintenance which may impact the potential for pollutants to be discharged, or if the plan proves to be ineffective in controlling the discharge of pollutants. The SWPP plan should be kept available on site and the best management practices (BMPs) should be implemented. It is expected that the MPCA will review the success of the BMPs implemented on site in approximately two years. All records associated with this SWPP plan should be retained for at least one year after expiration of the General Permit or three years from the date of inspection whichever is longer.

The ultimate goal of the MPCA storm water program is to support and encourage the application of BMPs that control Nonpoint Source (NPS) pollution. The flowchart, shown in Figure 1, indicates what steps will be necessary to develop and implement a successful storm water plan. The flowchart shows how these steps have been grouped into five general phases, which are: (1) planning and organization; (2) assessment; (3) plan design; (4) implementation; and (5) evaluation/monitoring. The worksheets included in Appendix B of this SWPP plan were the main tool utilized to progress the plan through these five phases.

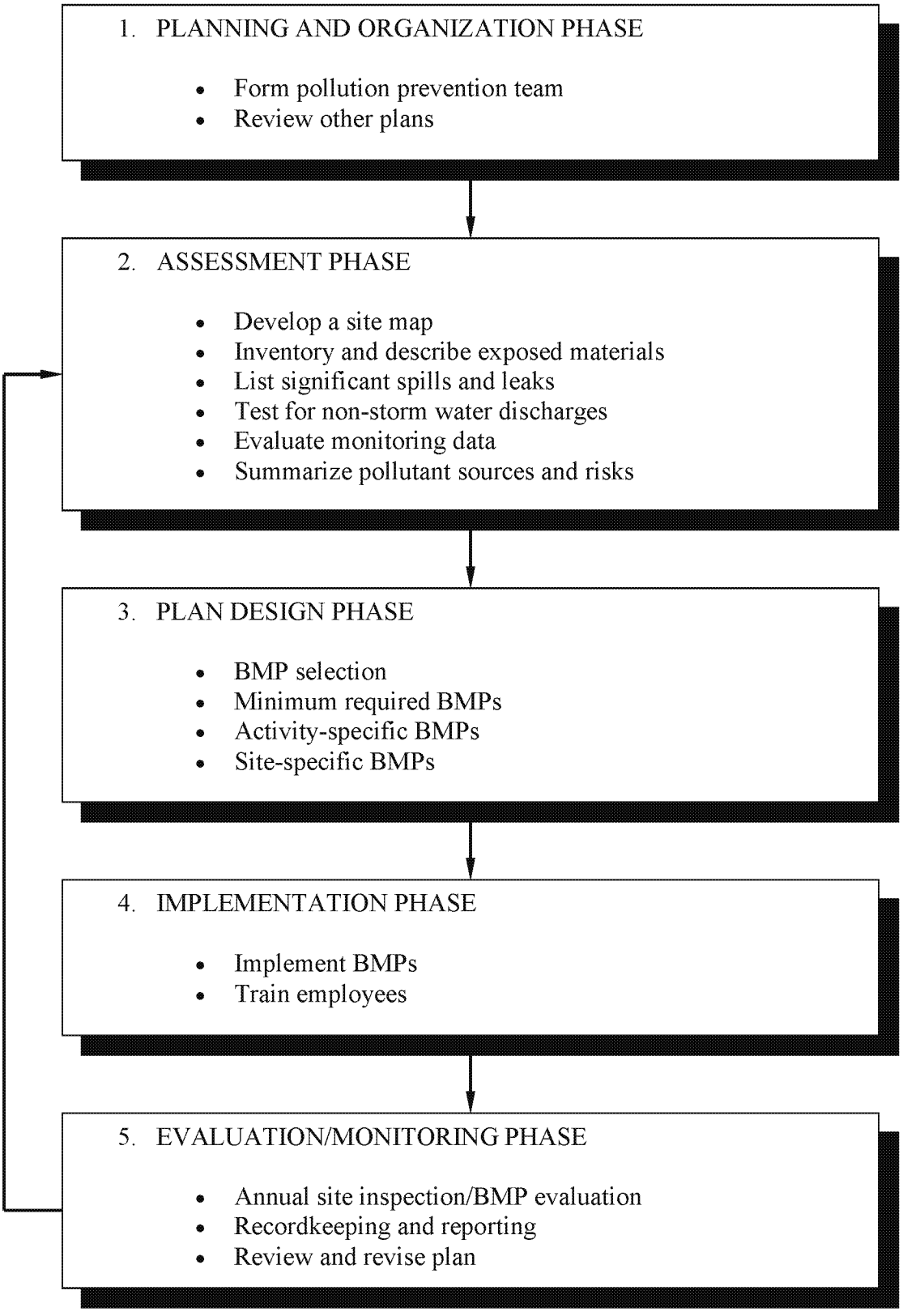

Figure 1. Storm Water Pollution Prevention Plan Flowchart

The main objectives of a SWPP plan should be as follows:

- Eliminate illegal dumping into storm water system.
- Eliminate illicit connections to storm water piping systems.
- Eliminate run on from off-site areas.
- Reduce the number/amounts of pollutants in storm water runoff from the site.
- Reduce the liability/exposure of the owner of the site from violations of permits, environmental damage claims, and citizen suits.

The most prevalent contaminant in state surface waters is sediment resulting from water erosion. Storm water runoff carries large amounts of sediment from exposed surfaces such as entrance roads, rooftops, storage areas, and parking lots. Other pollutants commonly present in storm water are oils, organics, process chemicals, fertilizers, salts, and herbicides. These pollutants wash off areas where they are applied or spilled, flow into drainage ditches, and are carried into receiving waters. In response to these potential water quality problems, this SWPP plan will address any problem areas and describe BMPs that will be implemented to control sediment and associated pollutant runoff from the property.

U. S. Steel's Minnesota Ore Operations facility (Minntac) has the following general problem areas:

- Fueling operations at the site.
- Outdoor glycol usage at the site.
- Storage containers left outdoors but not contained.
- Aboveground storage tanks that are not contained.
- Non-storm water connections to the storm drain system.

Best management practices will include inspecting areas around the site with the potential to contaminate storm water, practicing good housekeeping procedures, and reducing exposure of pollutants to storm water. The implementation of these BMPs, along with existing procedures utilized at Minntac, are the core of this storm water pollution prevention plan. The intent of this plan is to meet the state's storm water management requirements; however, the overall objective of the plan is to have a positive effect on the environment in the Mesabi Iron Range.

1.0 PLANNING AND ORGANIZATION

This storm water pollution prevention plan has been organized around the requirements called out in the State of Minnesota General Permit Number G610000 (see Appendix A). The storm water pollution prevention plan is a stand-alone document. However, it reflects the requirements, and incorporates all pertinent storm water provisions, of other existing documents such as Minntac's spill prevention, control, and countermeasures (SPCC) plan and industrial discharge permits issued by MPCA. For example, Minntac has developed a spill prevention and control program around their SPCC plan that includes the proper procedures for handling fuel and chemical spills. It is intended that the SWPP plan will not duplicate the SPCC plan or program, but that the storm water-related procedures and details will be implemented where applicable. The removal of storm water from mining pits and the process of pumping fine tailings to an enclosed basin area are integral parts of the mining industry and are themselves operations permitted by the state under the NPDES program. Because of this, the SWPP plan will focus on operations at the site that are not actually inside the pits or tailings basin.

The SWPP plan identifies the roles and responsibilities of designated storm water pollution prevention team members. Worksheet 1, "Storm Water Pollution Prevention Team" in Appendix B, indicates personnel responsible for implementing, maintaining and revising the plan, as required. The goals of the team are to collectively decide what works best for the facility and be a focal point for the company in its efforts to reduce storm water pollution at the facility. The storm water pollution prevention manager has been identified as the key person on site who is most familiar with the facility and its operations. The plan manager is responsible for providing adequate structure and direction to the facility's entire storm water management program. The majority of the team members are representatives of the different phases that make up the facility's operations. These team members provide first hand knowledge about the procedures, problems, and possibilities regarding storm water handling at their specific areas. The plan manager is responsible for making sure all pertinent storm water information is collected and organized in a storm water file. This includes an up-to-date copy of the SWPP plan, training records, office memos, inspection reports, etc. The consultant is responsible for conducting the initial site assessment, advising the team regarding identification of pollutant sources and risks, and helping the team determine the BMPs. Implementing the recommended BMPs and evaluating the effectiveness of the plan is performed jointly between all team members.

2.0 ASSESSMENT PHASE

After investigating associated permits/plans, organizing the planning process, and identifying the members of the SWPP team, the assessment phase begins. During this phase, the facility is evaluated to determine which materials or practices are, or could be, a source of contamination to the storm water running off the site. This evaluation is accomplished through research of facility documents, meetings with SWPP team members, and a site tour. See Appendix C "Site Assessment Inspection" for a summary of the field notes taken on the site tour. The information gathered is summarized on the

site map in Appendix D and in Worksheets 2 through 10 in Appendix B. The assessment of the risk for specific materials and/or procedures to pollute storm water is then performed and summarized in Worksheet 11 in Appendix B. The next three sections describe the process in more detail.

2.1 Site Map

The Storm Water Site Map identifies potential pollutant sources and locates storm water management opportunities. The development of the site map essentially follows the guidelines listed on the EPA check sheet in Appendix D. The facility site map is basically an illustration of the overall site that indicates: property boundaries, buildings, operation or process areas, the drainage areas for each storm water outfall, storm water control structures, best management practices, and receiving waters. The site plan shows potential pollutant sources and possible storm water contact points. It also gives an overview of how storm water flows on, around, and off the site.

The site consists of an East Mine Pit, a West Mine Pit, a tailings basin complex, and pellet production and maintenance facilities. The East Pit has a dry building, a garage, and a fueling station but no other facilities associated with it. The West Pit has a dry building, a garage, a tire shop, a locomotive crane storage building, and two fueling stations associated with it. The tailings basin complex has a Step I/II coarse tails pocket, a Step III coarse tails pocket, a salt storage building, and a fueling station associated with it. The pellet production and maintenance facilities can be divided into five basic areas, namely, the Crusher buildings area, the Concentrator area, the Agglomerator area, the Central Shops and Warehouse area, and the Mobile Equipment Shop (MES) area. Storm water that falls around any of the above operating areas or facilities will flow to one of five permitted discharge points. These are Outfall 950 from the southern pellet production and maintenance area, East Pit dewatering, West Pit dewatering, Outfall 020 from the tailings basin, and Outfall 030 from the tailings basin.

2.2 Worksheets 2 through 10

Worksheet 2 "Impervious Surface Areas" lists the outfalls for the site and shows the percent of impervious surface in each drainage basin. This worksheet lists the outfalls discussed in the previous section. The percentage of impervious surface around the facility area is fairly high. Because of this, the drainage system needs to be designed to handle runoff with high volumes and flow rates. The percentage of impervious surface area for the total active site is less than two percent. Therefore, impervious surfaces have very little influence on the overall storm water drainage system.

Worksheets 3, 4, and 7, "Significant Materials Exposed to Storm Water," "Potential Pollutant Sources," and "Non-Storm Water Discharges," respectively, identify items or areas that currently, or could potentially, contribute to the degradation of storm water on site. Examples include raw material storage piles, aboveground storage tanks, and non-storm water connections to storm drains. These worksheets are completed from

information obtained during the field investigation and team meetings. The site features that fall into this category are as follows:

Significant Materials Exposed

- Excavated contaminated soil piles
- Pellet piles
- Reclaim concentrate piles
- Demolition landfill
- Crushed ore oversize piles
- Salvage yard
- Wood silo unloading area

Potential Pollutant Sources

- Permanent fueling stations: East Pit, MES, Coarse Tails Pocket, and lube storage
- Temporary fueling stations: AA (will be renamed as BB)
- Mobile fueling stations: West Pit #65 tank
- Aboveground fuel oil storage tanks: Agglomerator, East Pit, MES, Coarse Tails Pocket, and locomotive fueling
- Aboveground glycol storage tanks: Fines Crusher Step III Drive House, Fines Crusher Step I/II Drive House, Fines Crusher parking lot, Agglomerator Step III, and bulk lube storage
- Aboveground fuel oil tanks with a hose and nozzle: Agglomerator Step I/II, Agglomerator Step III, Concentrator, MES, and Central Shops
- Aboveground gasoline tanks with a hose and nozzle: Agglomerator Step I/II, Agglomerator Step III, Concentrator, MES, Mine Office, and West Pit Dry.
- $CaCl_2$ on pellet cars
- Aboveground $CaCl_2$ and wood sugar storage tanks: Rail car repair yard
- Aboveground jet fuel tank with a hose and nozzle: Cold storage building
- Aboveground defoamer storage tank: Concentrator
- Outdoor transformers: Substations
- Used oil tanks outdoors: Central Shops and Auto garage
- Storage barrels left outdoors: Concentrator and Salvage Yard
- Incinerating containers stored outdoors: Incinerator Yard
- Unloading area for Calgon and 630 Oil: Concentrator
- Vendor fueling areas in the field

- Equipment lubing and greasing operations in the field

Non-Storm Water Discharges

- Concentrator sumps overflow
- Concentrator sub-basement floor drains
- Lube Storage building sump discharge
- Degreaser building floor drains
- Steam cleaning building sump discharge
- Central Shops floor drains
- Locomotive fueling station trench drains
- Fines Crusher building sump overflows
- Fines Crusher building thickener overflow
- Oil house floor drains at coarse tails fueling station
- MES floor drains sump discharge
- Electric Shop steam cleaning room sump discharge
- Coarse Tails Pocket garage floor drains discharge
- Auto Shop floor drains discharge
- Process water line vent pipe discharge
- Agglomerator pellet loadout dust control water discharge
- Agglomerator Steps I/II and III floor drain sumps overflow

Worksheets 5 and 6, "Significant Spills and Leaks of Toxic or Hazardous Materials" and "Use of Pesticide, Herbicide and Fertilizer," address chemical spills and uses over the last three years. A list of hazardous substances and what quantities are considered significant can be found in Appendix E, "List of Hazardous Substances and Reportable Quantities." These worksheets identify areas where one-time occurrences can cause storm water pollution and preventative BMPs need to be employed. They are also helpful in revealing trends that may warrant a change in operating procedures or the construction of permanent treatment areas. These worksheets are to be updated routinely during the life of the plan to include additional data as needed.

The spill reporting program implemented with Minntac's SPCC plan details any spills or leaks at the site. In areas where a large spill or leak has occurred the contaminated soils are picked up and remediated. The use of fertilizers is confined to pit dumps and tailings basin cells for reclamation purposes. No pesticides are used outdoors at the site and herbicides are used infrequently by the power company along the high voltage service lines.

Worksheets 8 and 9, "Storm Water Management Practices Employed" and "Existing Storm Water Treatment," list current on-site controls and storm water treatment systems. This information is an integral part of deciding the risk potential of various problem areas. Examples of entries on these sheets would include good housekeeping practices, spill prevention training, retention ponds, diversion structures, etc.

Exiting management practices and treatment systems at Minntac include the following:

- Secondary containment for the fuel oil storage tanks at the fueling stations and the main fuel oil storage site
- Inspection check sheets and spill containment materials at fueling stations
- Secondary containment for the glycol storage tank at the Fines Crusher Step I/II Drive House, the jet fuel storage tank, and the defoamer storage tank
- Use of weirs, launderers, and skimmers on direct and overflow discharges to storm sewers or drainage ditches at many buildings on the site
- Discharging floor drains and sump overflows directly to the tailings basin from some of the buildings on the site
- The Agglomerator floor drains and the pellet loadout dust control water discharge to a settling pond than to the tailings basin
- The sump pump at the Lube Storage building floor drains sump is locked out to prevent discharging to the storm sewer
- Vendors carry spill response kits when operating on site
- Transformers are inspected regularly for oil leaks and weepage. Some transformers are concrete contained. Transformers in the mine area that contain PCBs are maintained under a program for outdoor equipment that contains PCBs
- Loading and unloading procedures for Calgon and 630 Oil at the Concentrator are supervised by plant personnel
- Many aboveground storage tanks were evaluated and consolidated where possible
- The process water line vent between Agglomerator Steps I/II and III was valved to prevent random discharges of process water
- The tailings basin is the only existing storm water treatment system on the site. The basin furnishes an isolated area for dilution and retention of storm water

The purpose of Worksheet 10, "Storm Water Sampling Data," is to summarize any monitoring data that is available for storm water discharges. Monitoring is not currently required under the Minnesota General Permit Part II Storm Water Pollution Prevention Plan. However, it is expected that the MPCA will review the success of all BMPs implemented on site. At that time, monitoring will be completed in accordance with any future requirements as set forth by the MPCA. Minntac has no existing monitoring data that can be applied to their storm water plan.

2.3 Risk Assessment

Worksheet 11, "Risk Assessment/Material Inventory," is the summary of the assessment process where all the information contained on the preceding worksheets and the site map is considered and those areas of the site that present a risk of polluting storm water are identified. The areas identified are divided into three groups of pollution potential: high, medium, and low. Those areas rated as "high" are first priorities and often need structural controls constructed or new operating procedures adopted in order to lower their pollution potential. Areas rated as "medium" need to be addressed, but can usually be resolved with procedural BMPs and little cost. The areas rated as "low" do not require additional BMPs, but are areas that should be observed in case the potential for storm water pollution increases.

Minntac has 13 areas with a "high" pollution potential, 7 with a "medium" pollution potential, and 21 with a "low" pollution potential.

The 13 high pollution potential areas can be grouped into five main categories, which are fueling operations at the site, outdoor glycol usage at the site, storage containers left outdoors but not contained, aboveground storage tanks that are not contained, and non-storm water connections to the storm drain system.

The first category, fueling operations, presents the greatest risk to storm water simply because at a site the size of the Minntac operation, the task of fueling equipment is enormous. The entire process of bringing fuel in, storing it, and delivering fuel to mobile equipment and kilns presents the potential to have leaks or spills that could contaminate storm water. However, there are some areas where the potential has been decreased, and other areas where the potential needs to be decreased. The highest pollution potential portions of the fueling system are the vendor unloading areas at permanent tanks and field locations, the pumping areas at permanent fueling stations, and the fuel oil and gasoline tanks with hose and nozzle dispensing systems that are not contained.

The second category, outdoor glycol usage at the site, refers to the practice of spraying ore surge piles and concentrate piles with glycol during the winter. There are two main problems with this practice. First, the piles are not covered, except for part of the reclaim concentrate pile, which means runoff from these areas is contaminated with the glycol that does not stay on the material. Second, only one of the five outdoor glycol storage tanks has containment and a few of the tanks are not secured.

The third and fourth categories can be discussed together. Storage barrels, used oil tanks, incinerator containers, and aboveground storage tanks that are outdoors need to be contained by a structure that will contain a leak of all their contents. Incinerator containers and aboveground storage tanks offer the greatest risk of contaminating storm water. Incinerator containers are made of cardboard/paperboard and contact with moisture could cause them to fail. Aboveground storage tanks have a large enough quantity of product that a leak would create a large area of contaminated soils subject to runoff.

The fifth and final category is non-storm water connections to the storm drain system. There are many different types of connections including: sump discharges, process overflows, process discharges, and floor drains. None of these connections with high pollution potential have treatment or control elements on them.

The seven medium pollution potential areas are the aboveground jet fuel storage tank, the outdoor transformers in the mine area that contain PCBs, the Calgon and 630 Oil unloading areas at the Concentrator, and four non-storm water connections. The jet fuel tank has a hose connection that is left outside the tank containment, which increases the risk of spills coming in contact with storm water. The transformers are maintained and inspected under a program for outdoor equipment that contain PCBs. The unloading areas for Calgon and 630 Oil at the Concentrator have been the sites of numerous spills. These spills are subsequently cleaned up. However, there is still a potential for storm water contamination. The four non-storm water connections with a medium pollution potential are overflows that discharge into a storm water drainage ditch or flows that go through some treatment and/or control elements before being discharged into the storm drain system. The overflow discharges are not present under normal operation of the plant, and routine maintenance of the process systems should keep them to a minimum. The treatment and control elements are weirs, launderers, or skimmers. However, they may not be adequate for the flow or are not properly maintained which is why the connections are considered medium risk areas.

The 21 areas with low pollution potential are as follows:

- Excavated soils
- Pellet piles
- Concentrate reclaim piles
- Demolition landfill in the tailings basin
- Salvage yard
- Wood silo unloading area
- Aboveground fuel oil storage tanks
- Temporary fueling station "AA"
- Aboveground $CaCl_2$ and wood sugar storage tanks
- Aboveground defoamer storage tanks
- Outdoor substation transformers
- Field lubing operations in the pit
- Concentrator sumps overflow
- Concentrator sub-basement floor drains
- Lube Storage building sump discharge

- Oil House floor drains discharge
- Electric Shop steam cleaning room sump discharge
- Coarse Tails Pocket garage floor drains discharge
- Process water line vent pipe discharge
- Agglomerator pellet loadout dust control water discharge
- Agglomerator Step I/II and Step III floor drain sumps overflow

These areas are considered low risk for one or more of the following reasons. Some of the materials exposed are not harmful enough to the environment to warrant implementing a BMP. Secondly, the potential pollutants in the area are already being managed by an existing practice at the site. And finally, one or more of the BMPs that are being implemented for one of the higher risk potential areas will manage the potential pollutants in the area. Again, it should be mentioned that these are areas that need to be periodically evaluated in order to make sure they continue to be low risk areas and do not need specific BMPs implemented for them.

3.0 PLAN DESIGN PHASE

Based on the assessment of the facility, the SWPP team looks at the entire site and designs a plan that ties together the existing BMPs and the new BMPs needed to cover the "high" and "medium" rated areas mentioned in the assessment phase of the plan. Worksheets 8 and 9, discussed previously, cover the practices and treatment systems already employed on site. All of the BMPs are listed in Worksheets 12 and 13, "Preventive Maintenance Program" and "Structural and Non-structural Controls," which essentially make up the whole of the plan. The following is an outline of the plan:

Preventive Maintenance Program

- Good housekeeping
- Equipment maintenance
- Visual inspections of storage areas, loading and unloading areas, parking lots, piping, tanks, sumps, launders and containment basins for water tightness and cleanliness
- Record maintenance activities
- Record storm water pollution problems
- Record chemical or material spills
- Develop a waste disposal plan

Structural Controls

- Design enclosed fueling stations with concrete pads and sump/skimmer systems for all permanent fueling stations
- Enclose all exposed fuel-dispensing modules with a cover and containment housing
- Enclose and contain barrels containing hazardous waste, used oil, grease, and various chemicals or store indoors without violating the SPCC plan
- Cover the south side of the locomotive fueling area and plug the trench drains on both sides
- Collect storm water runoff from the crushed ore oversize piles in settling ponds
- Construct a covered and curbed area for storage of waste containers at the incinerator yard

Non-structural Controls

- Establish a contaminated soils treatment system for the site
- Inspect transformers every six months
- Employ proper loading and unloading procedures at all bulk-product unloading areas. Have a Minntac employee supervise delivery as required by Minntac management
- Contain hose and nozzle dispensing systems at fueling stations throughout the plant
- Conduct a study of non-storm water connections to the storm drain system. Evaluate these connections and determine how flows can be rerouted, treated, or modified to eliminate/reduce storm water contamination
- Collect the contaminated sludge from sumps and dispose of properly
- Implement a plan to have aboveground storage tanks meet aboveground rules regardless of size and proximity to surface waters
- Require that vendors and plant maintenance vehicles carry spill response kits at all times. Vendors should also be required to report and contain all spills to the Minntac Environmental Engineering Department

Employee Training

- Spill Prevention and Response
- Good Housekeeping and Preventive Maintenance
- Material Management and Handling Practices
- Storm Water Pollution Prevention

4.0 BMP IMPLEMENTATION PHASE

The SWPP plan team is responsible for the implementation of the BMPs listed in Section 3.0, with different team members responsible for specific requirements. The plan manager is responsible for the coordination of the team along with any specific task assignments. Many of the BMPs put forth in this plan are already employed on site. The following is a detailed discussion of the new BMPs and how to implement them.

Structural Controls

- Design enclosed fueling stations with concrete pads and sump/skimmer systems for all permanent fueling stations. Enclosed fueling stations with concrete pads will be large enough to permit all necessary mine vehicles to enter and fuel. The concrete pads will be sloped to prevent spills or water from running off. A sump/skimmer system will be installed to catch and treat any spills.
- Enclose all exposed fuel-dispensing modules with a cover and containment housing. The enclosures will be simple housings which prevent storm water contact with fuel and catch spills or leaks from the dispensing modules. These housings will contain only the fueling system and will not interfere with vehicle traffic that fuel at these fuel-dispensing modules.
- Enclose or contain barrels containing hazardous waste, used oil, grease, and various chemicals or store indoors without violating the indoor-storage policies stated within Minntac's SPCC plan. Minntac will enclose barrels of hazardous substances by: 1) designating a few specific storage locations for only these materials, 2) placing them within concrete containment basins that drain internally to sump and treatment or containment systems, and/or 3) providing covers over the basins to prevent storm water contact with the containers.
- Cover the south side of the locomotive fueling area and plug the trench drains on both sides. The south side of the locomotive fueling area will be covered by constructing a cantilevered roof from the side of the locomotive station structure. This roof will prevent storm water from falling directly into the fueling area. Roof drains will divert the storm water runoff away from the fueling area. The existing trench drains for the north and south trenches will be plugged.
- Collect storm water runoff from the crushed ore oversize piles in settling ponds. Storm water runoff will be collected from the crushed ore oversize piles by diverting the flow through drainage swales. Drainage swales will surround the approximate perimeters of the crushed ore oversize piles and will run directly to settling ponds where they will discharge to settling ponds where they will discharge the storm water runoff. The ponds will permit the settleable solid, i.e., fine ore material, to settle out so that storm water, free of these potential pollutants, may be discharged.
- Construct a covered and curbed area for storage of waste containers at the incinerator yard. The storage area at the incinerator yard will be covered to prevent storm water contact with the waste containers. However, the area will not

be enclosed by walls. The floor of the area and its perimeter (curb) will be constructed of concrete to contain spills of any of the waste materials.

Non-structural Controls

- Establish a contaminated soils treatment system for the site. A system will be developed to treat all contaminated soils that are: 1) generated on site or are present on site and 2) capable of being excavated and transported from the site of origination. This treatment system will conform to all standards regulating treatment of such materials.
- Inspect transformers every six months. Operators will visually inspect the transformers at least once every six months. Inspections will be documented and retained in Minntac's SWPP records. If problems, such as leakage or weepage, are detected they will be repaired as soon as possible.
- Employ proper loading and unloading procedures at all bulk-product unloading areas. Have a Minntac employee supervise delivery as required by Minntac management. Proper procedures will be required of all vendors who load and unload bulk products within Minntac's property. A Minntac employee who will supervise the operations will ensure that Minntac's procedures are followed.
- Conduct a study of non-storm water connections to the storm drain system. Evaluate these connections and determine how flows can be rerouted, treated, or modified to eliminate/reduce storm water contamination. The Minntac plant will find all non-storm water connections to the storm drain system, determine the sources of the connections, and design mitigation practices or structures to eliminate the connections. The study will be done in report form so that the removal of the connections can be documented and the success of BMPs can be measured and evaluated.
- Collect the contaminated sludge from sumps and dispose of properly. The sludge that accumulates over time will be removed from the sumps to prevent loss of sump capacity and possible overflows into storm water systems.
- Implement a plan to have aboveground storage tanks meet rules for aboveground storage tanks regardless of their size and proximity to surface waters. Minntac will implement a plan to document the locations, containment requirements, and usages for all aboveground storage tanks on site. This plan will be similar in nature to the plan that is required for all aboveground tanks that are greater than 500 gallons.
- Require that vendors and plant maintenance vehicles carry spill response kits at all times. Vendors will also be required to report and contain all spills to the Minntac Environmental Engineering Department. This is an existing practice. However, a special effort will be made to ensure that it is enforced.

Employee Training is presently conducted at Minntac for a variety of subjects, many relating to storm water. Worksheet 14, "Employee Training Schedule" in Appendix B, is

to be used by the Employee Trainer to coordinate and schedule different training sessions. One element that needs to be added to the existing program is a session on storm water pollution prevention training. As with the plan itself, storm water pollution prevention training is not intended to be a duplicate effort of other training, but should be an overall discussion of storm water and its relationship to issues addressed in other training sessions. The purpose of the training program is to instruct personnel on the components and goals of this SWPP plan. When properly trained, personnel at all levels in the organization are more capable of preventing spills, responding safely and effectively to an accident when one occurs, and recognizing situations that could lead to storm water contamination.

5.0 EVALUATION/MONITORING

Inspections and recording activities will be important parts of the continued success of this SWPP plan. In accordance with the Minnesota General Permit, inspections will occur at least once every six months and after any significant storm event. This permit does not require the submittal of a monitoring report. However, trained personnel will perform visual inspections. A Routine Visual Inspection Report is included in Appendix E for use by the SWPP plan manager and designated site inspectors. Incidents such as spills or other discharges will be included in the reports and will include the following data:

- Date and time of the incident
- Weather conditions at time of incident
- Cause and duration of incident
- Resulting environmental problems
- Response procedures employed
- Parties notified
- Recommended revisions of the BMP program
- Recommended changes in operating procedures to prevent recurrence
- Recommended equipment needed to prevent recurrence

In general, documenting all inspections, whether routine or detailed, is a good preventive maintenance technique. The analysis of inspection reports allows for early detection of any potential problems and helps to devise improvements in the BMP program.

Record keeping of all documents pertaining to the SWPP plan is another good preventive maintenance technique. The information that is kept in the records will include the following where applicable:

- The SWPP plan
- Certification of non-storm water discharges
- Updates to the SWPP plan and the reasons for these updates

- Routine visual inspection reports
- Spill response procedures (SPCC plan)
- Training materials, dates, and attendance lists
- Copies of memos, flyers, and posters regarding the SWPP plan
- Summary of Daily/Weekly inspection reports
- Maintenance activity reports for equipment and storm water controls
- Minutes of SWPP team meetings
- Reports of hazardous substance releases in excess of reportable quantities

These records will enable the storm water pollution prevention team to evaluate the effectiveness of the BMPs and the equipment, as well as the operations of the drainage system. The plan will be revised if it is determined that the best management practices employed are not controlling the discharge of pollutants into the storm water.

The SWPP plan will be retained for the duration of the Minnesota General Permit and a copy will be available from the SWPP plan manager. The routine visual inspection reports, required by the permit every six months and after significant storm events, will be maintained on site for a minimum of one year after expiration of the General Permit or three years from the date of inspection, whichever is longer.

APPENDIX B

Worksheets

APPENDIX C

Site Assessment Inspection